

### **Amendments to the Specification**

Please replace paragraph [0121] with the following amended paragraph:

[0121] Another embodiment of the invention is shown in FIGS. 25-31, where the nucleus 130 is elongated, with a flattened section 150 that is either a partial cylinder with curved sections 152 and 154 on both sides of the flattened section. It is believed that this design, when mated with a cylindrical surface 156 on the interior of the upper end plate 136, shown in FIG. 29, will provide better wear characteristics because it will have surface contact during medial/lateral bending and line contact during flexion/extension. The end plate can include a stop member to prevent the prosthesis from moving toward the spinal canal.

Please replace paragraph [0122] with the following amended paragraph:

[0122] The elongated shape of the nucleus 130 is illustrated in FIGS. 25 and 26, which show that the nucleus has a round cross section with constant medial-lateral radius from anterior to posterior (A-P), with the flat section 150 in the middle being oriented to provide a correction angle as described above, for the flattened portions on the other embodiments of the nucleus. The nucleus 130 is asymmetrical, with the flattened surface 150 oriented at an angle and having a greater height at the anterior end than at the posterior end. Thus when implanted between two vertebral bodies in the A-P orientation indicated in FIGS. 25 and 26, the nucleus 130 has an asymmetrical shape aligned with the sagittal plane, and across or crossing the coronal plane, of the vertebral bodies. The interior surface 156 of the upper end plate 136 has a cylindrical shape with the same constant radius in the anterior/posterior direction as the nucleus.